

# EUROPEAN PATENT OFFICE

## Patent Abstracts of Japan

PUBLICATION NUMBER : 10334511  
PUBLICATION DATE : 18-12-98

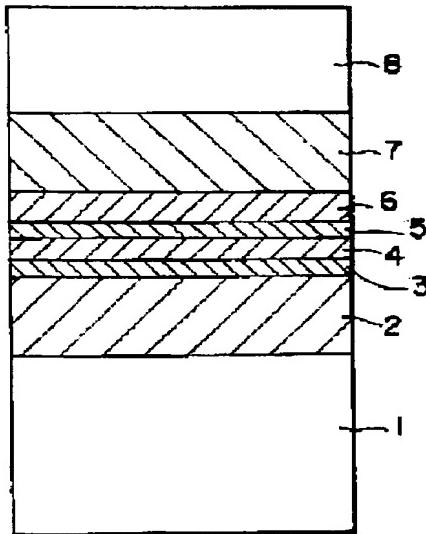
APPLICATION DATE : 29-05-97  
APPLICATION NUMBER : 09139954

APPLICANT : ASAHI CHEM IND CO LTD;

INVENTOR : SUZUKI MASARU;

INT.CL. : G11B 7/24 G11B 7/24 G11B 7/24

TITLE : OPTICAL INFORMATION RECORDING MEDIUM



**ABSTRACT :** PROBLEM TO BE SOLVED: To greatly improve repetitive recording and erasing characteristics by providing the recording medium with boundary layers consisting of a metal sulfide combined with sulfur ions and metal ions of a specific size in at least either right above or right below a recording layer which is formed on one surface of a transparent substrate and is reversibly subjected to the interaction between crystalline and amorphous states according to the intensity of the irradiation light.

SOLUTION: A first protective layer 2 consisting of a mixture composed of ZnS and SiO<sub>2</sub> and having a thickness 150 nm is formed on the substrate 1 formed by using a polycarbonate resin. The first boundary layer 3 consisting of Ce<sub>2</sub>S<sub>3</sub> which is a compd. formed by combining rare earth element ions and sulfur ions and having a thickness of 2 to 5 nm is formed thereon. A recording layer 4 consisting of Sb-Te-Ge and having a film thickness of about 25 nm is formed on the first boundary layer 3 and a secondary boundary layer 5 consisting of the same compsn. as the compsn. of the first boundary layer 3 and having the same film thickness is formed thereon. A second protective layer 6 consisting of same compsn. as the compsn. of the first protective layer 2 and having a film thickness of about 35 nm and a reflection layer 7 consisting of Al-Cr are superposed thereon, by which the optical disk is obtd.

COPYRIGHT: (C)1998,JPO